UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,459	10/22/2001	Andreas Muehlberger	AT 000061	6481

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EXAMINER
PROCTOR, JASON SCOTT

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Office Action Summary	Application No. 10/083,459	Applicant(s) MUEHLBERGER ET AL.
		Examiner Jason Proctor	Art Unit 2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-25_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-25_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _22 October 2001_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☒ None of:

　　　1.☒ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____ .

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____ .
4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

Requirement for Information – 37 CFR 1.105

An issue of public use or on sale activity has been raised in this application. In

order for the examiner to properly consider patentability of the claimed invention

under 35 U.S.C. 102(b), additional information regarding this issue is required as

follows: The specification (page 1, lines 1-25) describes an invention of admitted

prior art marketed by the Applicant that appears to render obvious, if not

anticipate, the claimed invention of the instant application. Specifically requested

are disclosure of the described invention and the date on which it was first

offered for sale.

**The fee and certification requirements of 37 CFR 1.97 are waived for

those documents submitted in reply to this requirement.**   This waiver

extends only to those documents within the scope of this requirement under 37

CFR 1.105 that are included in the applicant's first complete communication

responding to this requirement. Any supplemental replies subsequent to the first

communication responding to this requirement and any information disclosures

beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee

and certification requirements of 37 CFR 1.97.

**The applicant is reminded that the reply to this requirement must be

made with candor and good faith under 37 CFR 1.56.** Where the applicant

does not have or cannot readily obtain an item of required information, a

statement that the item is unknown or cannot be readily obtained will be accepted as a complete reply to the requirement for that item.

This requirement is subject to the provisions of 47 CFR 1.134, 1.135, and 1.136 and has a shortened statutory period of *2 months*. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a). Applicant is reminded that failure to fully reply to this requirement for information will result in a holding of abandonment.

Conclusion

Art considered pertinent by the examiner but not applied has been cited on form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

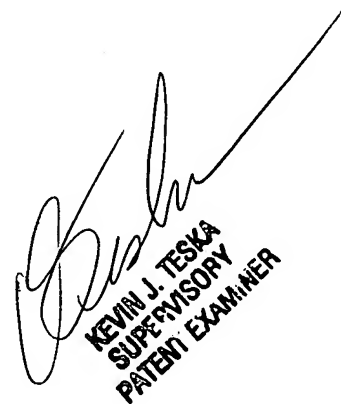If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin J Teska can be reached on (571) 272-3716. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR.   Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free).

Jason Proctor
Examiner
Art Unit 2123

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KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER

DETAILED ACTION

Claims 1-25 have been presented for examination.

Claims 1-25 have been rejected.

Priority

Applicant's request for priority under 35 U.S.C. § 119 to EPO application 00890320.5, filed on October 23, 2000 is acknowledged. The Office has received a claim for priority and paper asserting that a certified copy of the EPO application has been provided, however the foreign application cannot be found in the record. The Examiner respectfully requests that a certified copy of the foreign priority document be resubmitted in the event that the claim for priority under 35 U.S.C. § 119 is used to traverse intervening prior art.

Specification

The disclosure is objected to because of the following informalities: several instances of typographical errors or nonstandard terminology were found. For example, page 8, lines 7-10 read as follows:

> Each of the three computers 3, 5, and 10 is connected to transmission means 6 and forms part of an in this case star-shaped network 7, which is arranged for communication according to an Interprocess Communication protocol, that is, TCB/IP protocol.

The Examiner notes that other references in the specification refer to the well-known Internet Protocol, TCP/IP. Interprocess communication is a separate technology from networking protocols such as TCP/IP. The Examiner presumes that Applicant intends to refer to Transmission Control Protocol/Internet Protocol, commonly known as TCP/IP.

Appropriate correction is required.

Claim Objections

Claims 1, 8, 11, 14, 15, 18, 19, 22, and 23 are objected to because of the following

informalities: Where a claim sets forth a plurality of elements or steps, each element or

step of the claim should be separated by a line indentation. There may be plural

indentations to further segregate subcombinations or related steps. See 37 CFR 1.75

and MPEP 608.01(i)-(p). Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. § 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

1.   Claims 1-2, 8-9, 11-12, 14-16, 18-20, and 22-23 are rejected under 35 U.S.C. §

101 because the claimed invention is directed to non-statutory subject matter.

The disclosure teaches that the entire simulation of the claimed invention can be

realized in software:

Regarding the station simulation, page 10:

> The **station data processing simulation means 12 are also realized by software** that can be
> executed on the computer 11 and are arranged for simulating the behavior of the logic system--as
> far as this is necessary--for simulating the behavior of storage means of the logic system or of
> storage means of the real read/write station and for simulating the behavior of interfaces or
> input/output devices of the read/write station.

Regarding the data carrier simulation, page 11:

> The **data carrier data processing simulation means 17 are formed by software** that can be
> executed on the computer 11 and are arranged for simulating data processing means of a data

carrier arranged for contactless communication and for simulating a behavior of these data processing means.

Regarding the transmission means, page 9:

> The **transmission means 6 are formed by means for realizing the data network 7** while here these means for realizing the data network 7 are formed without the aid of network cards and without the aid of a network cable, **thus only with the aid of software** that can be executed on the computer 1.

All of these citations refer to Fig. 3, wherein the entire invention is embodied on a single

computer.

MPEP 2106(II)(A) reads as follows (emphasis added):

> The claimed invention as a whole must accomplish a practical application. **That is, it must produce a "useful, concrete and tangible result."** *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); *In re Ziegler*, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

MPEP 2106(II)(B) reads as follows (emphasis added):

> A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. *Schrader*, 22 F.3d at 296, 30 USPQ2d at 1460. **To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan (discussed in i) below), or (B) be limited to a practical application within the technological arts (discussed in ii) below).**

MPEP 2106(II)(B)(ii) reads as follows (emphasis added):

> There is always some form of physical transformation within a computer because a computer acts on signals and transforms them during its operation and changes the state of its components during the execution of a process. Even though such a physical transformation occurs within a computer, such activity is not determinative of whether the process is statutory because such transformation alone does not distinguish a statutory computer process from a nonstatutory computer process. What is determinative is not how the computer performs the process, but what the computer does to achieve a practical application. See *Arrhythmia*, 958 F.2d at 1057, 22 USPQ2d at 1036. **A process that merely manipulates an abstract idea or performs a purely mathematical algorithm is nonstatutory despite the fact that it might inherently have some usefulness.**

The claimed inventions that can be interpreted according to the embodiment shown in Fig. 3 do not produce a useful, *concrete and tangible* result. These claimed inventions operate entirely within a single computer, performing an algorithm that does not perform any physical transformation outside the computer. The claims rejected under 35 U.S.C. § 101 recite computer software that performs a purely mathematical algorithm and are therefore nonstatutory.

These claims contrast with claims such as claim 3, which recites that the data carrier simulation means are divided over various locations. This limitation precludes the embodiment of Fig. 3 and results in communication between computers, which is a physical transformation outside of a single computer.

To expedite a complete examination of the instant application the claims rejected under 35 U.S.C. § 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 6, 9-10, 12-13, 16-17, and 20-21 are rejected under 35 U.S.C. § 112, first

paragraph, as failing to comply with the written description requirement. The claim(s)

contains subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

application was filed, had possession of the claimed invention. These claims recite that

a "data network is arranged for communication in accordance with an Interprocess

Communication protocol". From Microsoft Computer Dictionary, Fifth Edition:

> **interprocess communication:** *n.*   The ability of one task or process to communicate with
> another in a multitasking operating system.   Common methods include pipes, semaphores,
> shared memory, queues, signals, and mailboxes. *Acronym:* IPC

The disclosure of the instant application provides no teaching of interprocess

communication. The specification (page 8, lines 7-10) appears to teach what is known

in the art as a communications protocol. From Microsoft Computer Dictionary, Fifth

Edition:

> **communications protocol:** *n.* A set of rules or standards designed to enable computers to
> connect with one another and to exchange information with as little error as possible.

The use of the term "interprocess communications protocol" in the specification is not

clearly defined and does not correspond to the definition of the term as used in the art.

As a result, the written description is not written in full, clear, concise, and exact terms.

Claims not specifically mentioned stand rejected by virtue of their dependence.

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Claims 1-13, 16-17, and 20-25 are rejected under 35 U.S.C. § 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention.

Claims 1 and 22 appear to recite recursively defined limitations which render

these claims vague and indefinite. For example, claim 1 recites "representation means

representing a read/write station", and later recites "transmission means for *transmitting*

data between the representation means and the data carrier simulation means,"

emphasis added. It is clear from this that the representing means provide some

function beyond merely representing a read/write station, because a representation is

insufficient to send or receive data with the data carrier simulation means.

The claim later recites, "the representation means are formed by station

simulation means." There is no previous recitation of a "station simulation means", and

since the "representation means" must provide some functionality for interacting with the

data carrier simulation means, it appears that the "representation means" are also the

"station simulation means". The claim further recites "the station simulation means are

provided for simulating the behavior of a read/write station arranged for a contactless

data communication", however this adds to the confusion because it is now unclear

what function the "representation means" actually provide or whether the "station

simulation means" and "representation means" are distinct components.

Claim 22 suffers similar ambiguity.

Claims 6, 9, 12, 16, and 20 recite that a "data network is arranged for

communication in accordance with an Interprocess Communication protocol", which

renders these claims vague and indefinite. Because interprocess communication takes place in a multitasking operating system, it is unknown what "a data network arranged for communication in accordance with an Interprocess Communication protocol" means.

Claims 7, 10, 13, 17, and 21 recite that "the data network is arranged for communication in accordance with the TCP/IP protocol", which renders these claims vague and indefinite. These claims depend from 6, 9, 12, 16, and 20, respectively, and it is unknown how a data network can be arranged for communication in accordance with both an interprocess communications protocol and a communications protocol such as TCP/IP.

Claims not specifically mentioned stand rejected by virtue of their dependence.

Claim Interpretation

In the interest of compact prosecution, examiner makes the following claim interpretations in order to apply prior art to the claims. See *Ex parte Ionescu*, 222 USPQ 537 (Bd. Pat. App. & Inter. 1984).

Claim 1 is interpreted as a system for simulating a contactless data communication between a read/write station and a portable data carrier wherein the system comprises three components: a read/write station simulation component, a portable data carrier simulation component, and a transmission means for transmitting data between the read/write station simulation component and the portable data carrier simulation component.

Claim 22 is interpreted as the method employed by the system of claim 1.

Regarding claims 6, 9, 12, 16, and 20, the phrase "Interprocess Communication protocol" is interpreted as "communications protocol". This interpretation also resolves the indefiniteness of claims 7, 10, 13, 17, and 21.

Additionally, the Examiner makes the following interpretations:

A "smart card" as defined by ISO 7816 constitutes a "portable data carrier".

A "smart card" as defined by ISO 14443 constitutes a "portable data carrier with contactless data communication".

Any terminal that interfaces with a "smart card" according the communication specification of ISO 7816 or ISO 14443 constitutes a "read/write station".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Pitroda et al, US Patent No. 6,705,520, hereafter referred to as Pitroda.

5.   Regarding claim 1, Pitroda teaches a system for simulating the data

communication between a card reader in a point of sale interface and an emulated

smart card (column 3, lines 30-56). Pitroda defines "smart card" as complying with

either ISO 7816 or ISO 14443 (column 2, lines 33-39) and, although primarily directed

to ISO 7816, teaches modifications that enable the disclosed invention to work with ISO

14443 (column 7, lines 23-43; column 8, lines 2-15). Pitroda teaches that the smart

card emulator, referred to as *adapter 10* (Figs. 10-12) simulates the data

communication between the point of sale interface and the smart card, especially *POS*

interface circuit (column 7, line 65 – column 8, line 15).

Therefore Pitroda teaches the read/write station as *point of sale interface*, the

portable data carrier with contactless data communication as *adapter 10*, and

transmission means as *POS interface circuit*.

6.   Regarding claim 2, Pitroda teaches that the *adaptor* comprises a plurality of

simulated smart cards (column 7, lines 43-52), which constitutes a plurality of data

carrier simulation means.

Additionally, see MPEP 2144.04(VI)(B), Duplication of Parts.

7.   Regarding claims 3 and 4, Pitroda teaches that the *adaptor* is portable (column 9,

lines 8-22; column 9, lines 41-58). In the example of a credit card in a restaurant, it is

inherent that more than one *adaptor* would be employed, for example one *adaptor* per

customer or per table. Such an arrangement constitutes a plurality of data carrier

simulation means divided over various locations. Further, it is inherent that in the restaurant example, these *adaptors* would be divided over various locations relative to the location of the point of sale interface, which constitutes the station simulation means.

8.   Regarding claims 5-7, Pitroda teaches that the *adaptor* contains an interface for a LAN computer network for this functionality (column 7, lines 43-52). Official notice is taken that a LAN computer network is a data network, it is well known to use communication protocols with a LAN computer network, and that TCP/IP is a well-known communication protocol for communicating over a LAN computer network.

9.   Regarding claim 8, Pitroda teaches that the point of sale interface comprises a contactless interface for communicating with the simulated smart card (column 7, lines 23-43; column 7, line 65 – column 8, line 15). It is inherent that the point of sale interface is connected to the transmission means, which in this case are the means for communicating with a smart card defined by ISO 14443.

10.   Regarding claims 9-10, Pitroda teaches that the adaptor contains an interface for a LAN computer network for this functionality (column 7, lines 43-52).

11.   Regarding claim 11, Pitroda teaches that the *adaptor* simulates a contactless smart card as defined by ISO 14443 (column 7, lines 23-43; column 7, line 65 – column

8, line 15). It is inherent that the *adaptor* is connected to means for communicating with the point of sale interface, which in this case are the means for communicating according to ISO 14443.

12.   Regarding claims 12-13, Pitroda teaches that the adaptor contains an interface for a LAN computer network for this functionality (column 7, lines 43-52).

13.   Regarding claims 14-17, Pitroda teaches a point of sale interface that constitutes a read/write station and interfaces with a simulated smart card (column 3, lines 30-56). The smart card conforms to ISO 14443 (column 2, lines 33-39; column 11, lines 35-52). It is inherent that the point of sale interface is connected to means for communicating with the simulated smart card. Pitroda teaches that the adaptor contains an interface for a LAN computer network for this functionality (column 7, lines 43-52).

14.   Regarding claim 18-21, Pitroda teaches an *adaptor* that simulates a smart card and a point of sale interface that constitutes a read/write station (column 3, lines 30-56). The smart card conforms to ISO 14443 (column 2, lines 33-39; column 11, lines 35-52). It is inherent that the *adaptor* is connected to means for communicating with the point fo sale interface. Pitroda teaches that the adaptor contains an interface for a LAN computer network for this functionality (column 7, lines 43-52).

15.   Claims 22-25 recite the method employed by the system of claims 1-4 and are rejected for the same reasons given above for claims 1-4.

Conclusion

Art considered pertinent by the examiner but not applied has been cited on form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin J Teska can be reached on (571) 272-3716. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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